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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,853	01/11/2002	Steven Teig	SPLX.P0007	9148

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EXAMINER

WILLIAMS, ALEXANDER O

ART UNIT PAPER NUMBER

2826

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/043,853

Applicant(s)

TEIG ET AL.

Examiner

Alexander O Williams

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 36-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 36-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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Serial Number: 10/043853 Attorney's Docket #: SPLX.P0007

Filing Date: 1/11/2002;

Applicant: Steven et al.

Examiner: Alexander Williams

This application is a continuation of 09/681776, filed 6/3/2001 which is a continuation of 09/733104, filed 12/7/2000.

Applicant's election of Group I without traverse (claims 36 to 41) in Paper # 7, filed 4/18/03, has been acknowledged.

Applicant's Pre-Amendment in Paper # 5, filed 1/3/03 has been acknowledged.

Claims 1-35 and 42-47 have been canceled.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The disclosure is objected to because of the following informalities: The related application information should be updated. It is unclear what is meant by the "&quot;" and "&deg;" mean throughout the specification.

Appropriate correction is required.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 36 to 41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Glenn (U.S. Patent # 6,150,193) in view of Igarashi et al. (U.S. Patent # 6,262,487 B1).

36. Glenn (figures 1 to 20) specifically figure 7-9 and 13b show a package enclosing an integrated circuit comprising: at least one metal layer **50** comprising at least two pairs of conductors **26** to interconnect one or more points on the integrated circuit, wherein a conductor comprises one or more wires and a wire comprises a continuous segment deposited in a single direction, each pair of conductors comprising: a first wire deposited in a first Manhattan direction relative to the boundaries of the integrated circuit, the first Manhattan direction being different than the second Manhattan direction, the second wire comprising a second wire length including first and second ends; a second wire deposited in a second Manhattan direction relative to the boundaries of the integrated circuit, the first Manhattan direction being different than the second Manhattan direction, the second wire comprising a second wire length including first and second ends, the first end of the second wire being coupled to the second end of the first wire; and wherein, an effective wiring direction of the pairs of conductors comprises an angle, A, measured relative to the boundaries of the integrated circuit, defined by the expression  $\tan A = Y/X$ , wherein, Y comprises a line segment with a distance starting from the second end of the second wire in the last conductor pair and ending at an intersection with a line segment propagated from the first end of the first wire and in the direction of the first wire, and X comprises a distance, measured in the

direction of the first wire, starting from the first end of the first wire and ending with the intersection of the Y line segment **(see column 7, line 39 to column 9, line 8) (see figures 7C and 8C)**. Glenn fails to explicitly show the integrated circuit. However, it would be obvious to one of ordinary skill in the art to have an integrated circuit in the semiconductor device package.

Igarashi et al. is cited for showing a semiconductor integrated circuit device. Specifically, Igarashi et al. (figures 1 to 29) specifically figure 5 discloses the internal structure of a semiconductor device's integrated circuit for the purpose of forming a X-Y reference wiring grid using wirings of metal layers.

37. The integrated circuit as set forth in claim 36, the combination with Glenn's first Manhattan direction comprises a horizontal direction and the second Manhattan direction comprises a vertical direction.

38. The integrated circuit as set forth in claim 36, the combination with Glenn's first Manhattan direction comprises a vertical direction and the second Manhattan direction comprises a horizontal direction **(see figures 7c and 8c)**.

39. The integrated circuit as set forth in claim 36, the combination with Glenn's first wire length equals the second wire length so as to simulate an effective direction of 45 degrees **(see figures 7c and 8c)**.

40. The integrated circuit as set forth in claim 36, the combination with Glenn's ratio of the first wire, length to the second wire length equals three to two, so as to simulate an effective wiring direction of 60 degrees **(see figures 7c)**.

41. The integrated circuit as set forth in claim 36, the combination with Glenn's metal layer comprises a plurality of independent conductors deposited in parallel.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Igarashi et al.'s integrated circuit to modify Glenn's package enclosing an integrated circuit for the purpose of forming a X-Y reference wiring grid using wirings of metal layers.

The listed references are cited as of interest to this application, but not applied at this time.

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Field of Search	Date
U.S. Class and subclass: 257/776,773,758,200,668,670,700,778,775,211,210,208, 207,206,208,72,401,369,315,300,209 716/7,1,12,7,5,8,1-21 361/735 345/443 438/197,33,113 29/850	6/28/03
Other Documentation: foreign patents and literature in 257/776,773,758,200,668,670,700,778,775,211,210,208, 207,206,208,72,401,369,315,300,209 716/7,1,12,7,5,8,1-21 361/735 345/443 438/197,33,113 29/850	6/28/03
Electronic data base(s): U.S. Patents EAST	6/28/03

***Papers related to this application may be submitted to Technology Center 2800 by facsimile transmission. Papers should be faxed to Technology Center 2800 via the Technology Center 2800 Fax center located in Crystal Plaza 4-5B15. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center 2800 Fax Center number is (703) 308-7722 or 24. Only Papers related to Technology Center 2800 APPLICATIONS SHOULD BE FAXED to the GROUP 2800 FAX CENTER.***

Any inquiry concerning this communication or any earlier communication from the examiner should be directed to ***Examiner Alexander Williams*** whose telephone number is ***(703) 308-4863***.

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Any inquiry of a general nature or relating to the status of this application should be directed to the **Technology Center 2800 receptionist** whose telephone number is **(703) 308-0956**.

6/29/03

A handwritten signature in black ink, appearing to read 'Alexander O. Williams', with a stylized, sweeping flourish extending upwards and to the right.

Primary Patent Examiner  
Alexander O. Williams